

I claim

1. A white light source, comprising:

a substrate;

a blue light-emitting diode placed on the substrate;

5 a phosphor mixture coated on the blue light-emitting diode and composed of a red phosphor, a green phosphor and a yellow phosphor.

2. The white light source as in claim 1, wherein the red phosphor is CaS:

Eu or SrS: Eu.

3. The white light source as in claim 1, wherein the green phosphor is

10 $\text{SrGa}_2\text{S}_4\text{:Eu}$ or $\text{Ca}_8\text{EuMnMg}(\text{SiO}_4)_4\text{C}_{12}$.

4. The white light source as in claim 1, wherein the yellow phosphor is

YAG:Ce or TbAG:Ce.

5. The white light source as in claim 1, wherein the white light source is packaged in a surface mount device.

15 6. The white light source as in claim 1, wherein the white light source is packaged in a lamp-type device.

7. The white light source as in claim 1, wherein the substrate is an insulating substrate.

8. The white light source as in claim 1, wherein the blue light-emitting
20 diode is made of a nitride compound.

9. The white light source as in claim 1, wherein the blue light-emitting

diode emits light with a wavelength of 400-490nm.

10. The white light source as in claim 1, wherein the red phosphor, the green phosphor and the yellow phosphor are mixed in a predetermined ratio.